



4 NEEDS ASSESSMENT

INTRODUCTION

In order to develop an appropriate design program for Chimney Rock State Park, it is important to consider the outdoor and recreational needs of a diverse range of past, present and future visitors. The assessment of these needs helps to define development alternatives for Chimney Rock State Park. A definition of "need" comes from several sources: an examination of state and national surveys of outdoor needs and use in western North Carolina, opinion surveys, and direct public input. It is clear through public input that potential users of Chimney Rock State Park are interested in a variety of park and recreational facilities. User trends and needs for specific recreational spaces and facilities have been identified both throughout the Hickory Nut Gorge region and the western part of North Carolina.

DETERMINING REGIONAL & LOCAL NEED FOR NATURAL RESOURCE-BASED RECREATION

Chimney Rock State Park is a world-class park and must be designed, developed and managed to meet diverse visitor needs. Therefore, the need for natural resource-based recreation was examined through local, regional, and national sources of input. Examples include the State Comprehensive Outdoor Recreation Plan, the National Survey of Recreation and the Environment, online surveys and public comment forms specific to Chimney Rock State Park, and public input from a planning workshop. Specifically, this chapter:

- Examines existing natural resource-based recreation in western North Carolina and the Hickory Nut Gorge Region;
- Examines the concentration of natural resource-based recreation using a recent user survey, a demand analysis, and geographic information systems (GIS) mapping;
- Analyzes the demographics of western North Carolina;
- Compares offerings at nearby state parks and other public lands; and
- Identifies the Chimney Rock State Park visitor.



A variety of activities and range of abilities are taken into account for the needs assessment.





REGIONAL NATURAL RESOURCE-BASED RECREATION

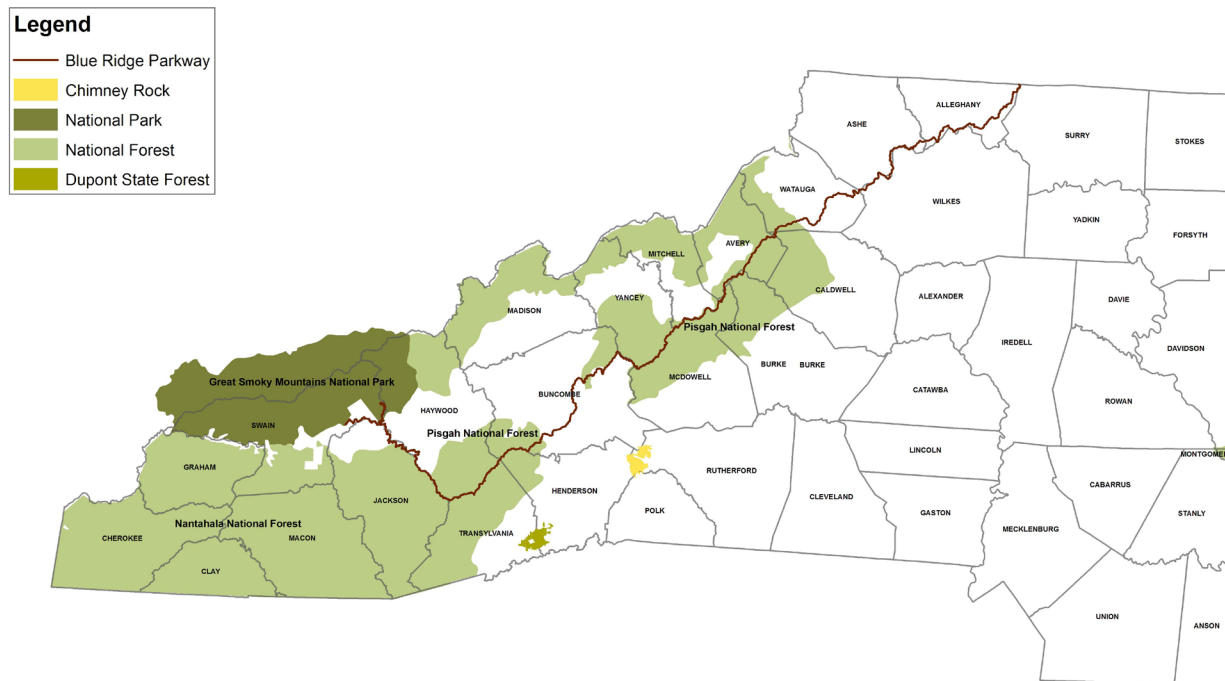
EXISTING NATURAL RESOURCE-BASED RECREATION IN THE WESTERN NORTH CAROLINA REGION

The western North Carolina region includes the Appalachian Mountains, Great Smoky Mountains and the Blue Ridge Mountains. Its boundaries are defined by the border shared with Tennessee to the eastern edge of Rutherford, Burke, Caldwell, Wilkes, and Surry counties. Several national protected areas span the region offering a range of nature-based recreational activity and include Pisgah National Forest, Nantahala National Forest, Great Smoky Mountains National Park, and the Blue Ridge Parkway (see Figure 4.1). Dupont State Forest is also a regional outdoor recreation destination. Natural resource-based activities for this region include:

- Hiking
- Winter Sports
- Mountain Biking
- Horseback Riding
- Rock Climbing
- Fishing
- Swimming
- Whitewater Rafting
- Paddling
- Camping/Backpacking
- Caving



FIGURE 4.1: NATIONAL PARKS AND FORESTS IN WESTERN NORTH CAROLINA



Source: NC One Map



EXISTING NATURAL RESOURCE-BASED RECREATION IN THE HICKORY NUT GORGE REGION

Hickory Nut Gorge is located between the Blue Ridge and Great Smoky Mountains. The 14-mile long gorge was formed by the Rocky Broad River and encompasses the communities of Lake Lure, Gerton, Bat Cave, and Chimney Rock Village. The region includes the counties of Buncombe, McDowell, Henderson, Rutherford, and Polk and is the location of Chimney Rock State Park. Based on the Statewide Comprehensive Outdoor Recreation Plan and local chamber of commerce data, natural resource-based activities for this area include:

- Hiking
- Mountain Biking
- Horseback Riding
- Rock Climbing
- Fishing
- Swimming
- Paddling
- Camping/Backpacking



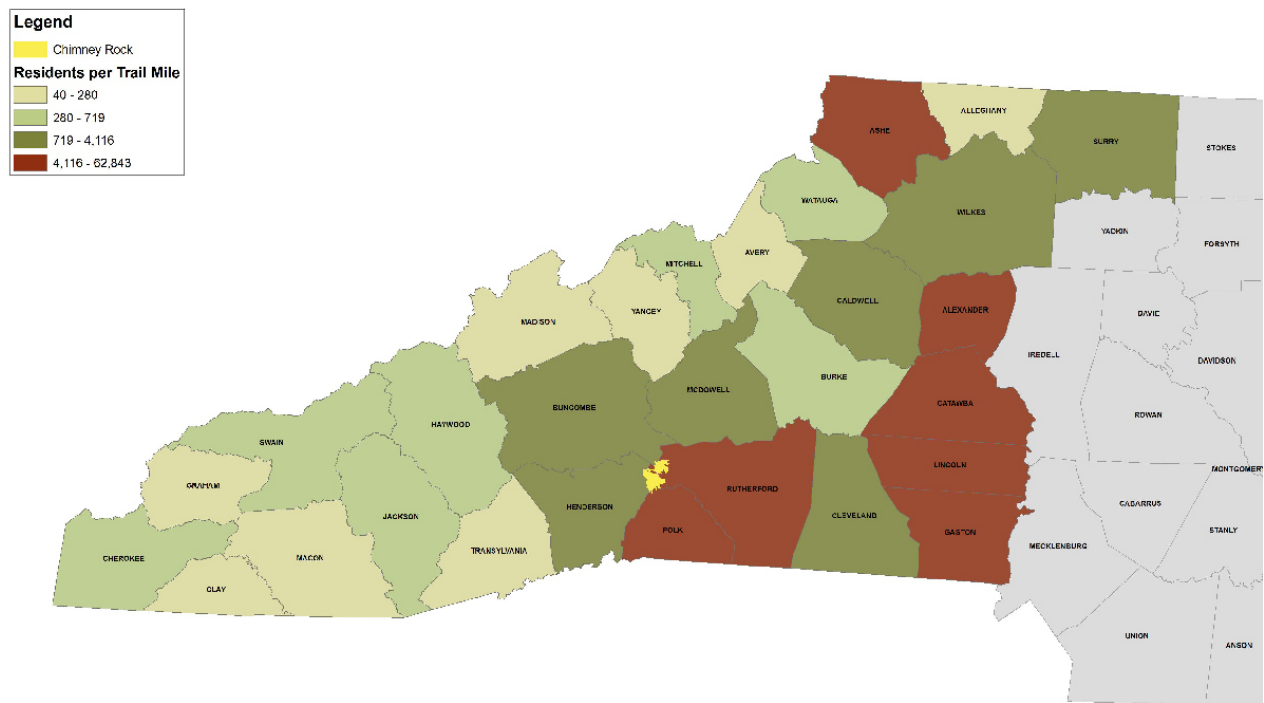
CONCENTRATION OF NATURAL RESOURCE-BASED RECREATION

The concentration of natural resource-based recreation varies across western North Carolina. This is likely due to the presence of the Nantahala and Pisgah National Forest, Blue Ridge Parkway and their recreation opportunities. These forests encompass 1,627 square miles across the western North Carolina region, however there is no access to them from the Hickory Nut Gorge. Between Nantahala and Pisgah National Forest, there are nearly 1,700 miles of hiking, mountain biking, and equestrian trails. In the Hickory Nut Gorge region, hiking trails are limited to the Donald Ross nature trails, Gerton hiking trails, and Chimney Rock State Park hiking trails. Figures 4.2 - 4.11 show the distribution of each nature-based activity for both the western North Carolina region and Hickory Nut Gorge.

When measured against the entire western North Carolina region, Hickory Nut Gorge is underserved when it comes to access to existing natural resource-based recreation. For example, Figure 4.2 shows miles of hiking trail per person, by county (data obtained from the Statewide Comprehensive Outdoor Recreation Plan, 2008). When considering trail need broadly across western North Carolina populations, it is evident that trails are needed in the counties adjacent to Chimney Rock State Park. In fact, these counties exhibit some of the highest numbers of residents per mile of hiking trail in the state (see Figure 4.2). Rutherford County experiences the highest ratio in western North Carolina with 62,843 persons per mile of trail, indicating the need for more hiking trails.

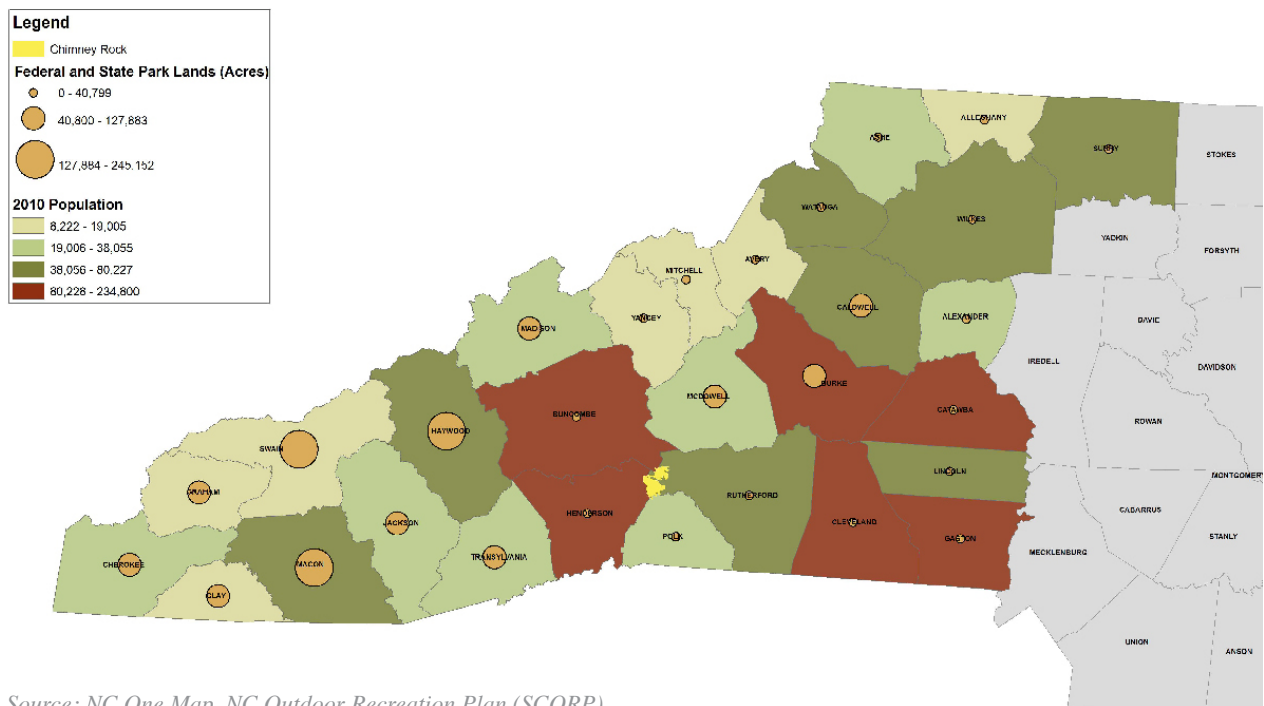


FIGURE 4.2: RESIDENTS PER MILE OF HIKING TRAIL BY COUNTY



Source: NC One Map, NC Outdoor Recreation Plan (SCORP)

FIGURE 4.3: FEDERAL AND STATE PARK LANDS AND 2010 POPULATION BY COUNTY



Source: NC One Map, NC Outdoor Recreation Plan (SCORP)

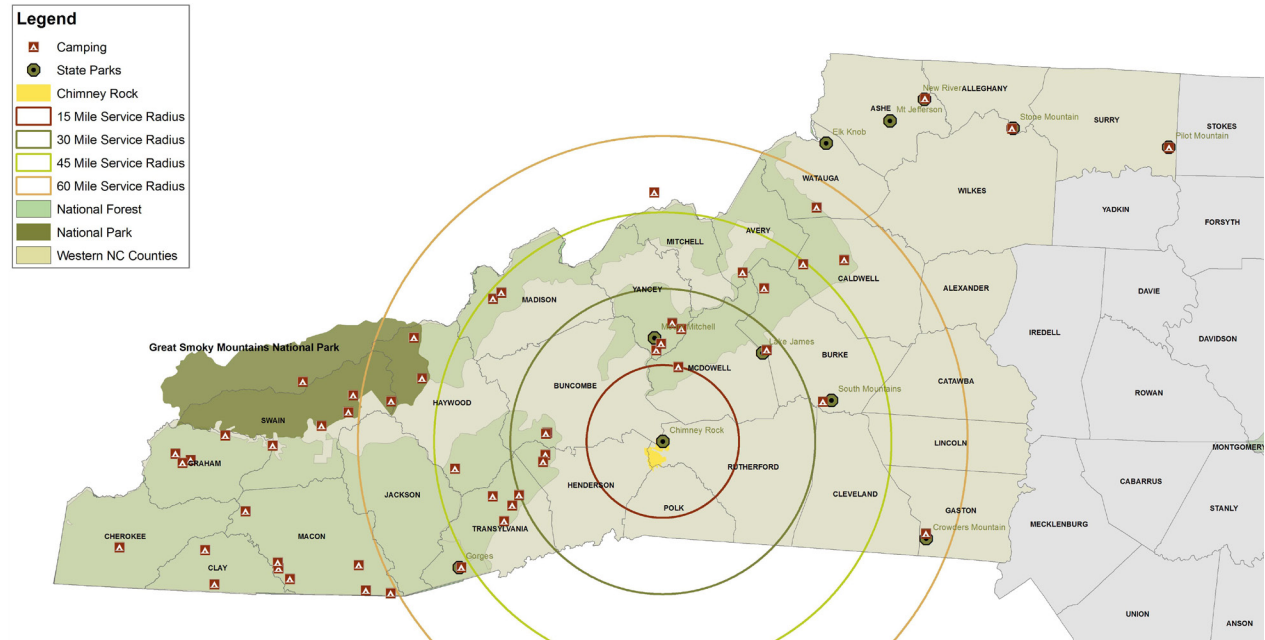
In Figure 4.3, the gradation from light green to maroon shows increasing population while the increases in circle size represent acreages of federal and state park lands. Adjacent counties to Chimney Rock have relatively low acreages of these parklands when compared to counties west of the study area. Yet, these counties, especially Buncombe and Henderson, have some of the highest populations in western North Carolina. Therefore, additional parklands are required to meet the needs of nearby residents.



NATURAL RESOURCE-BASED RECREATION MAPS

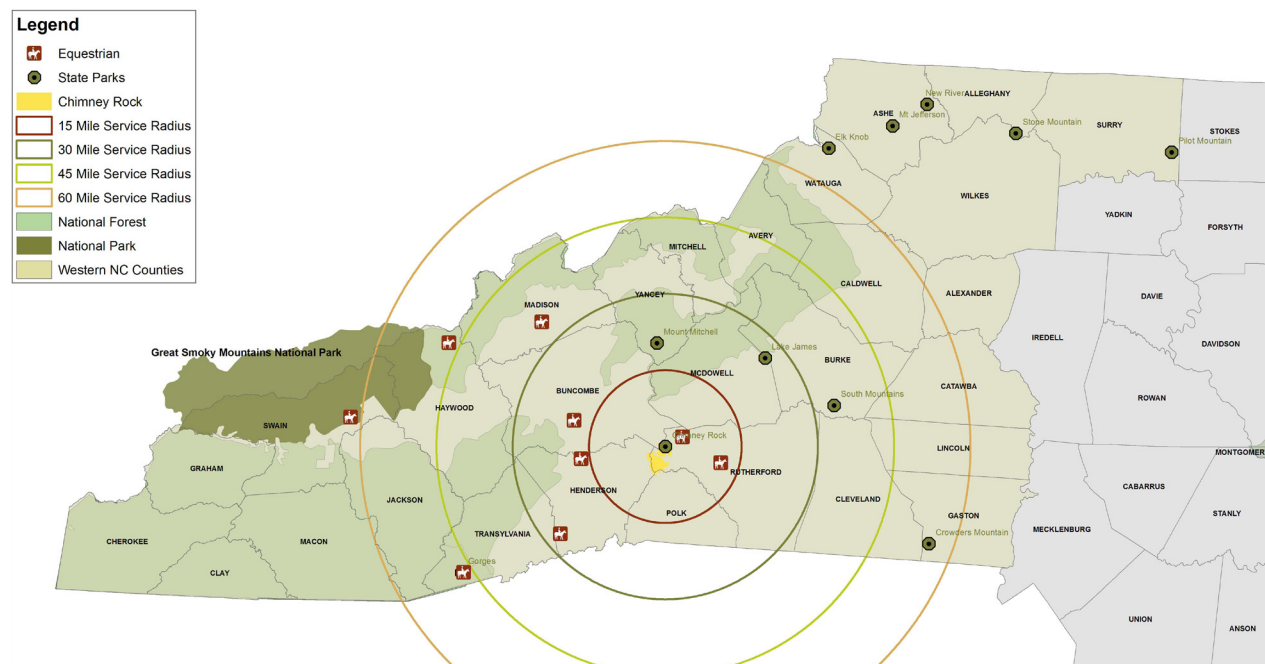
Every year, people visit western North Carolina to experience hiking, mountain biking, and other recreational activities. Examination of user proximity to these activities is important with respect to user groups as well as the development of future state parks facilities. While one user may be willing to make a four-hour round trip in one day to experience a day of hiking, a family with young children likely will not. Using Chimney Rock State Park as a hub, distances of 15, 30, 45, and 60-mile radii were examined. Figures 4.4 - 4.8 show travel distances from the park. By overlaying these service radii, we can begin to understand from a geographic perspective that there are deficiencies in such activities such as camping, hiking, and mountain biking. This information will help to determine the park development program for future state park facilities.

FIGURE 4.4: CHIMNEY ROCK SERVICE RADII - CAMPING AREAS



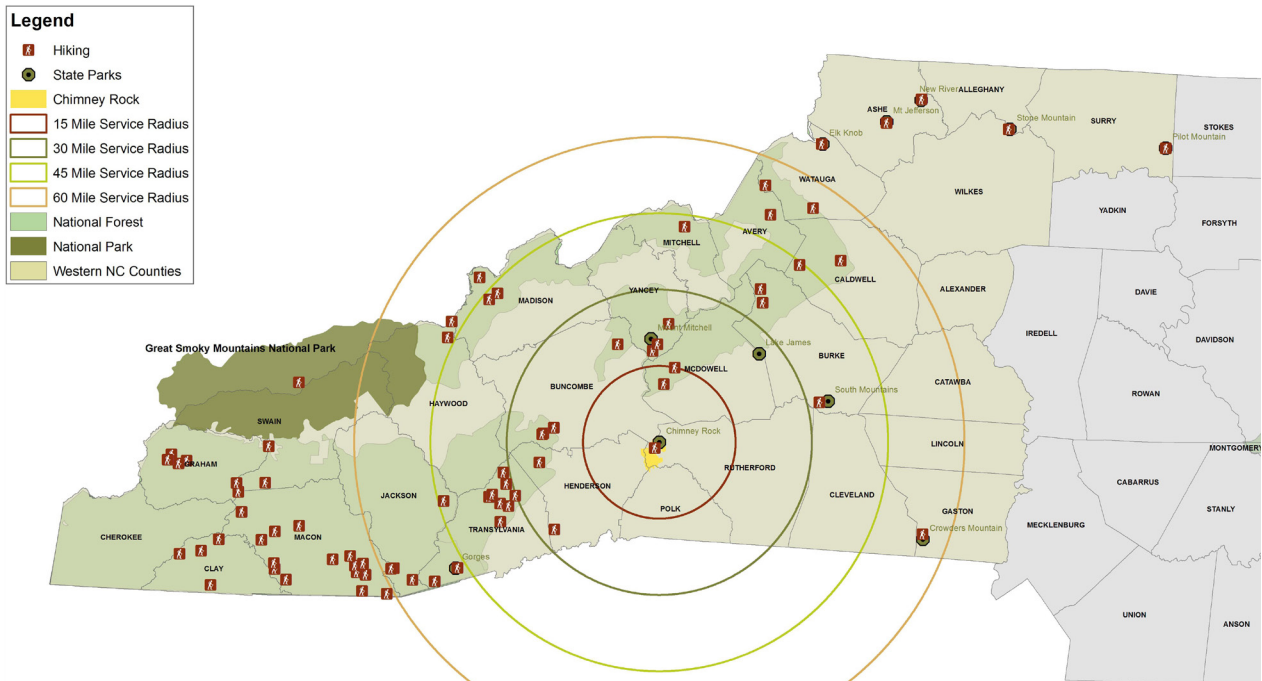
Source: NC One Map, North Carolina Gazetteer (DeLorme), various online sources

FIGURE 4.5: CHIMNEY ROCK SERVICE RADII - EQUESTRIAN TRAILHEADS



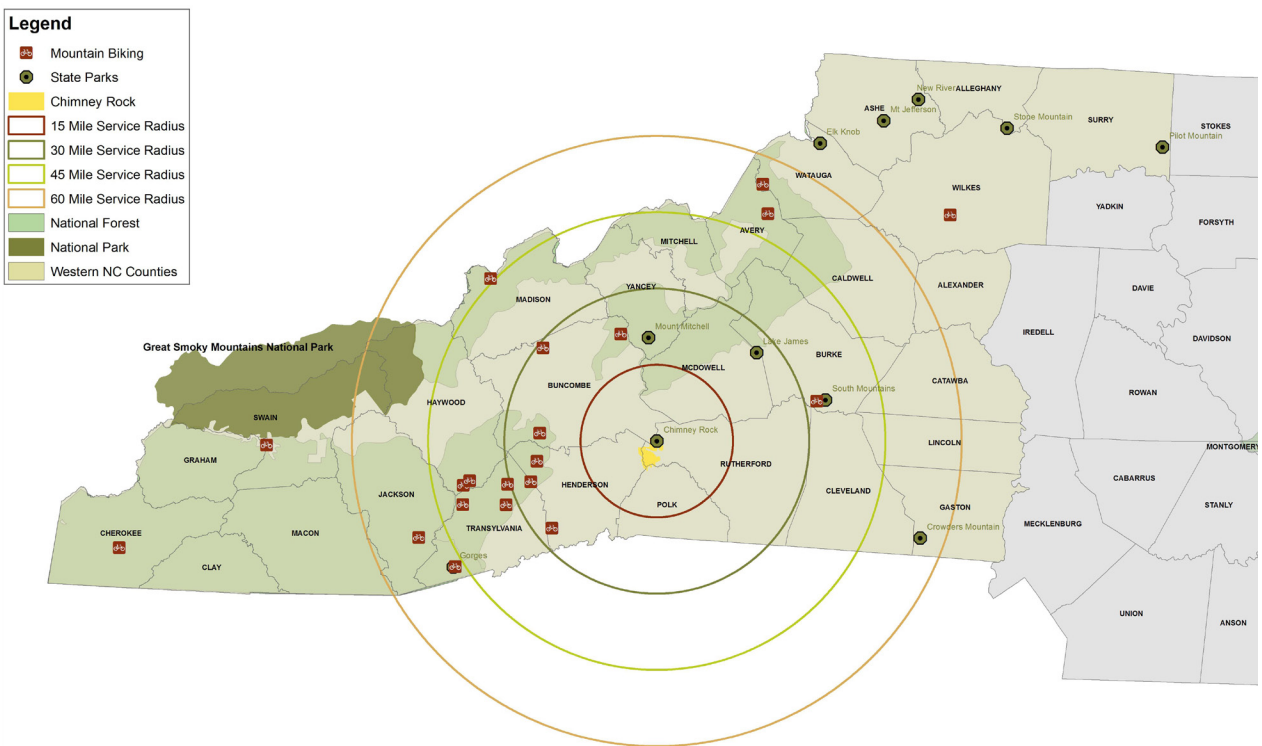
Source: NC One Map, North Carolina Gazetteer (DeLorme), various online sources

FIGURE 4.6: CHIMNEY ROCK SERVICE RADII - HIKING TRAILHEADS



Source: NC One Map, North Carolina Gazetteer (DeLorme), various online sources

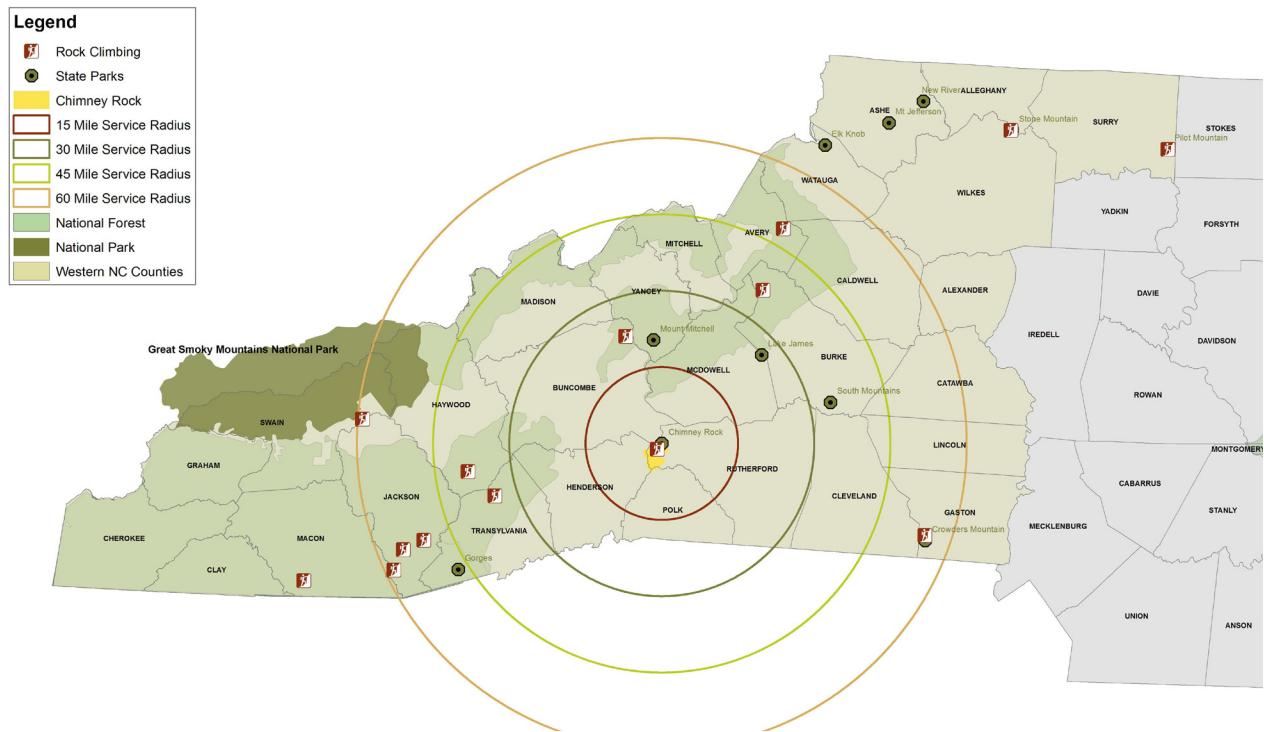
FIGURE 4.7: CHIMNEY ROCK SERVICE RADII - MOUNTAIN BIKING TRAILHEADS



Source: NC One Map, North Carolina Gazetteer (DeLorme), www.mtbikewnc.com, various online sources



FIGURE 4.8: CHIMNEY ROCK SERVICE RADII - ROCK CLIMBING



Source: NC One Map, North Carolina Gazetteer (DeLorme), Flatlines Southeast Climbing, various online sources

OTHER WESTERN NORTH CAROLINA STATE PARKS

Examining the park facilities of other western North Carolina state parks helps to assess the demand, use, and success of specific recreational options. This analysis will help guide specific program and facility recommendations for Chimney Rock State Park by 1) determining whether there is a lack of facilities in surrounding parks, and 2) understanding the successes and/or failures of specific facilities that may translate to Chimney Rock State Park. Table 4.1 and Figure 4.9 display the location and activities of other western North Carolina state parks.

TABLE 4.1: PROGRAMS AND FACILITIES AT OTHER STATE PARKS IN WESTERN NORTH CAROLINA

State Park	Distance from Chimney Rock	Env. Education	Overnight Facilities	Hiking	Mountain Biking	Equestrian
SOUTH MOUNTAINS	70 mi.	Yes	Camping	Yes	Yes	Yes
GORGES	60 mi.	Yes	Camping	Yes	Yes	Yes
LAKE JAMES	30 mi.	Yes	Camping	Yes	No	No
MOUNT MITCHELL	23 mi.	Yes	Camping	Yes	No	No



FIGURE 4.9: STATE PARKS IN WESTERN NORTH CAROLINA

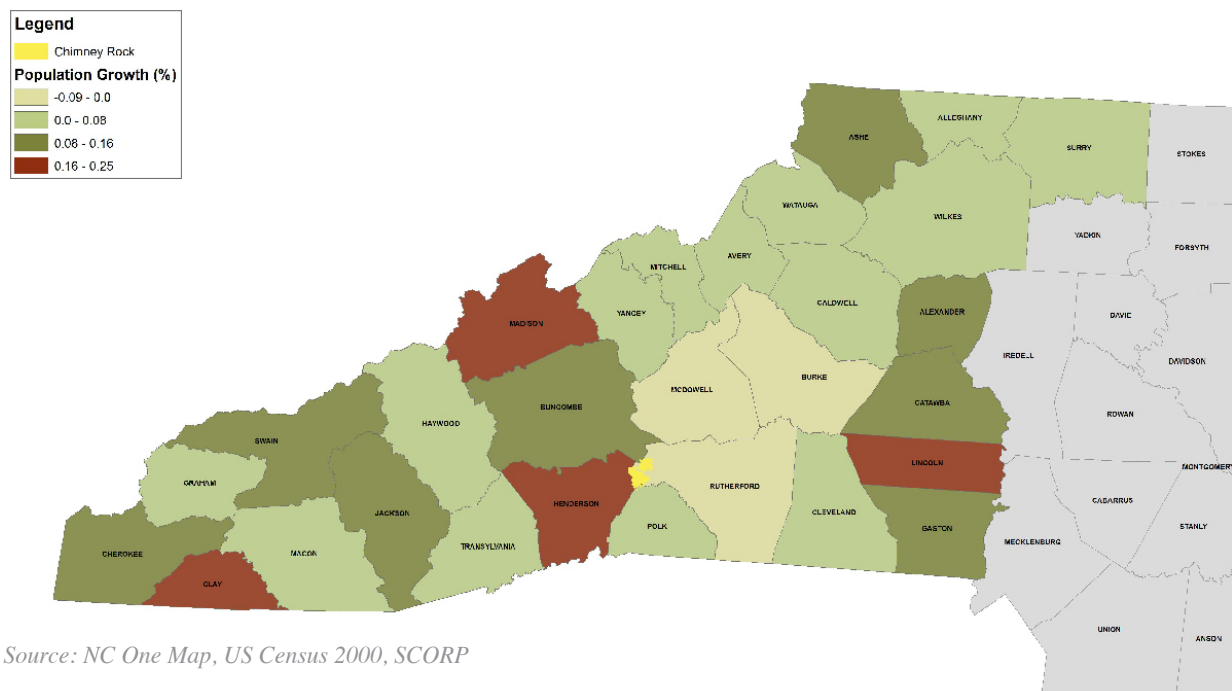


Source: NC One Map

DEMOGRAPHICS OF WESTERN NORTH CAROLINA

When recommending a park implementation program, demographics and population trends are important to consider, especially from a regional perspective. These trends help to inform park planners about the potential recreational needs of a changing population. Population growth has been significant in Henderson and Buncombe counties over the past 10 years (see Figure 4.10). It will therefore be important to understand the recreational needs of the existing and growing population (see Figure 4.15).

FIGURE 4.10: POPULATION GROWTH MAP (2000-2010)

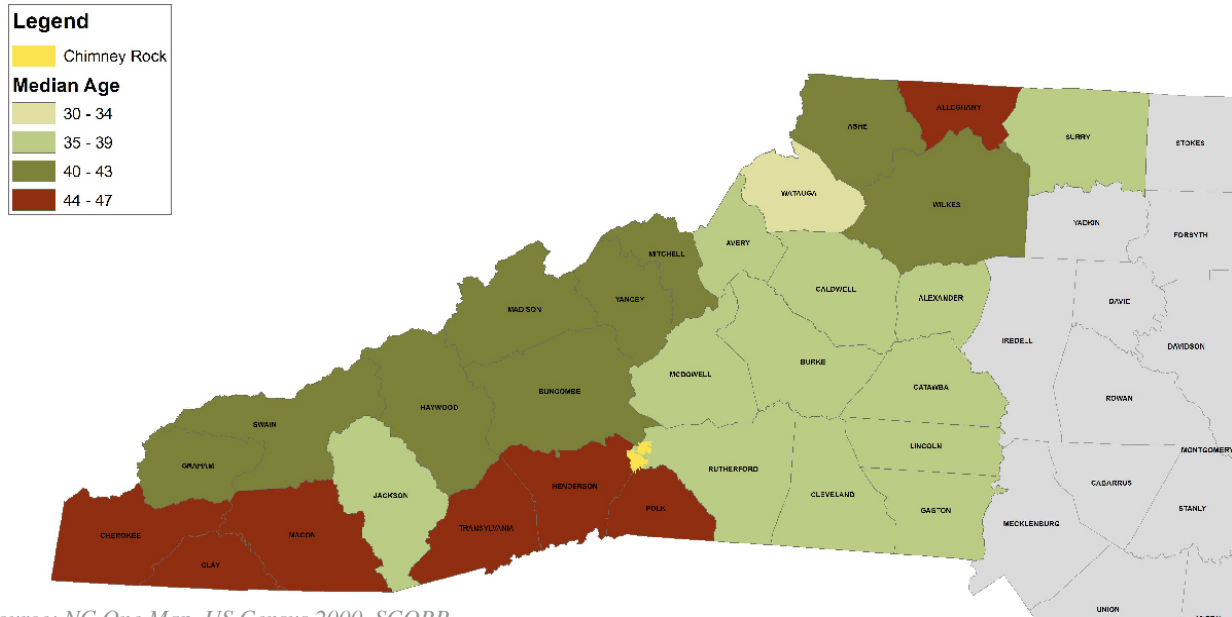


Source: NC One Map, US Census 2000, SCORP



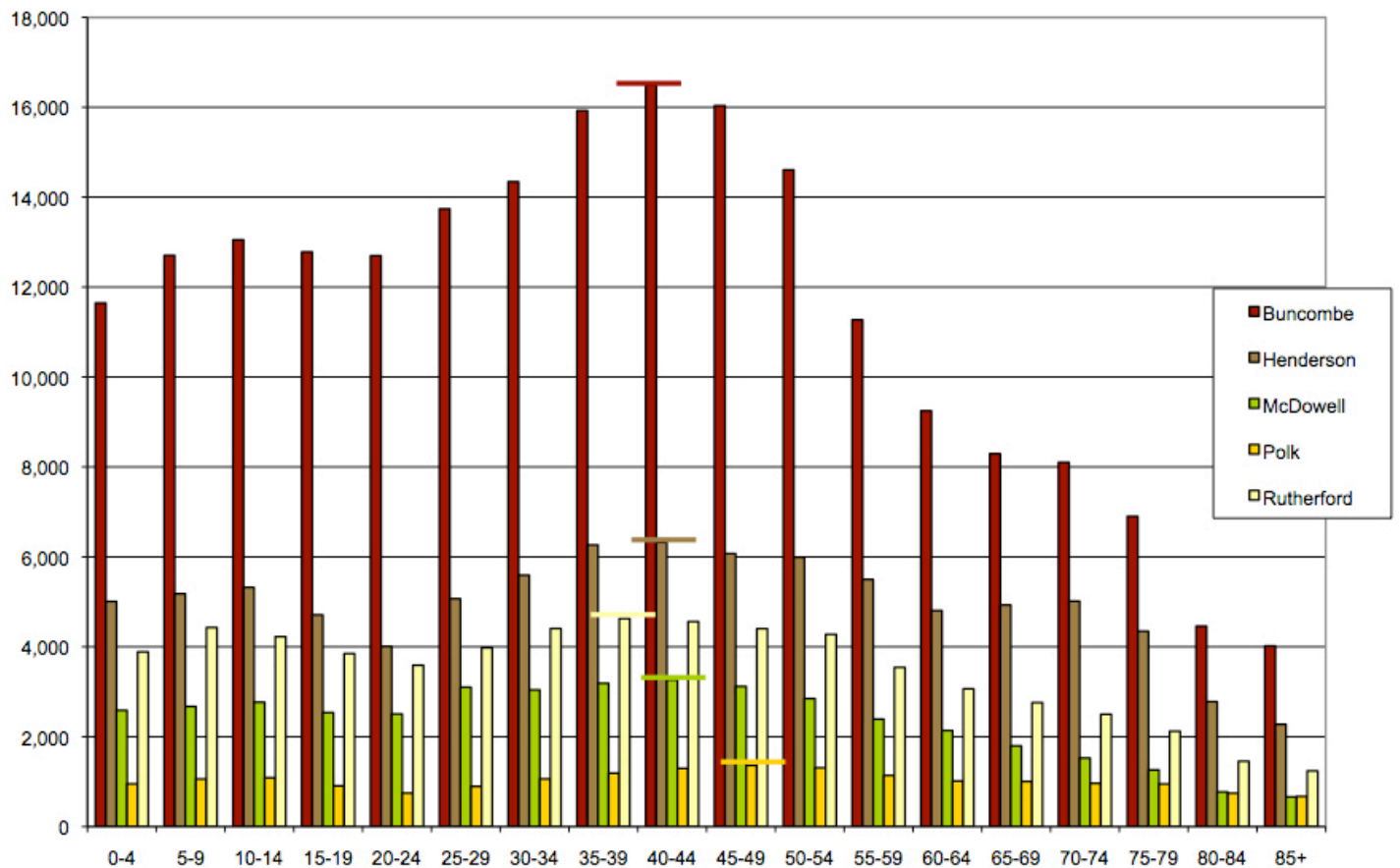
Interestingly, Chimney Rock State Park borders four counties that show quite a range of median age for western North Carolina (Figure 4.11). For example, Rutherford County has a median age of 38 while Polk County has a median age of 45. Because of this local range, it will be important to meet the recreational needs of both younger and older populations (see Figures 4.12 - 4.14).

FIGURE 4.11: MEDIAN AGE MAP (2000)



Source: NC One Map, US Census 2000, SCORP

FIGURE 4.12: AGE GROUP DISTRIBUTION (2000) Chimney Rock Surrounding Counties



Source: US Census 2000

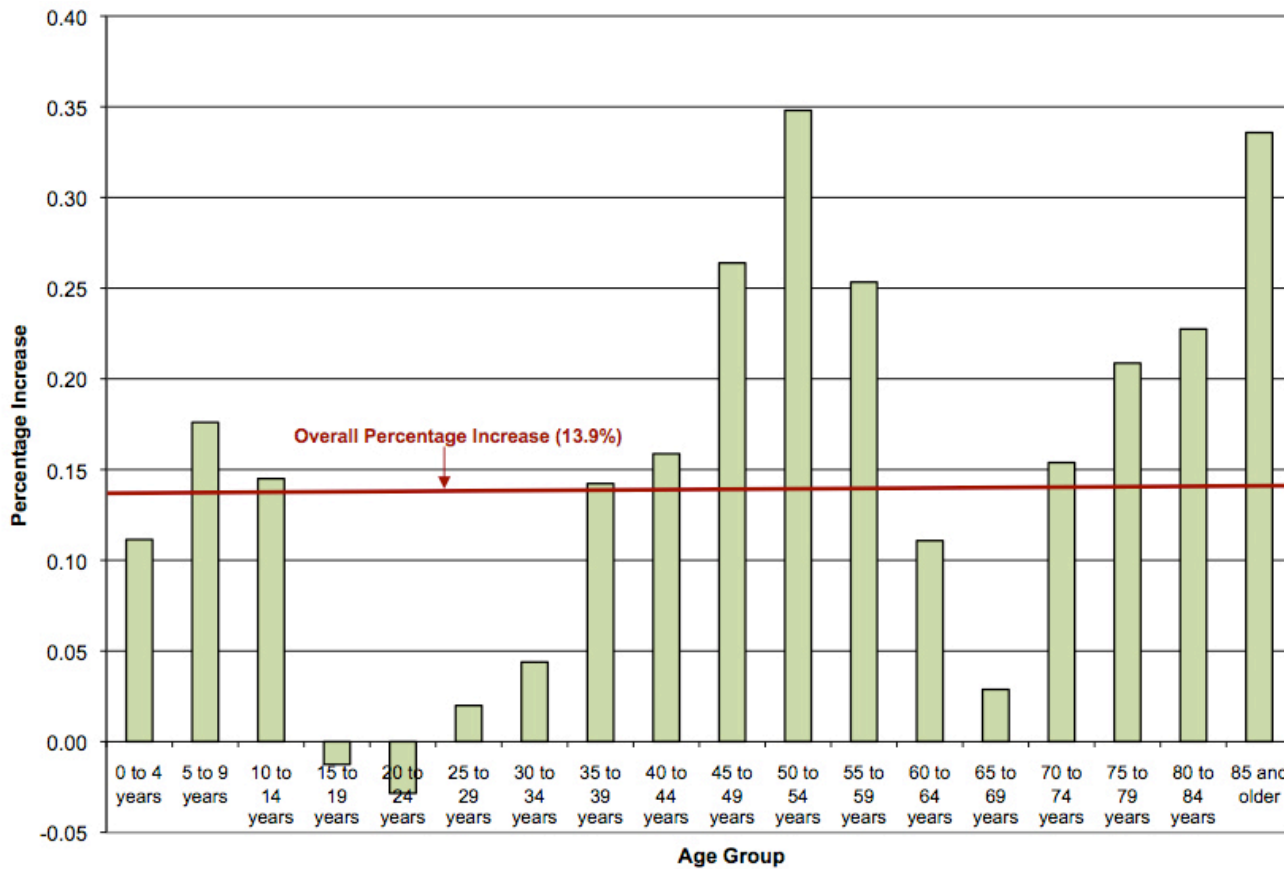
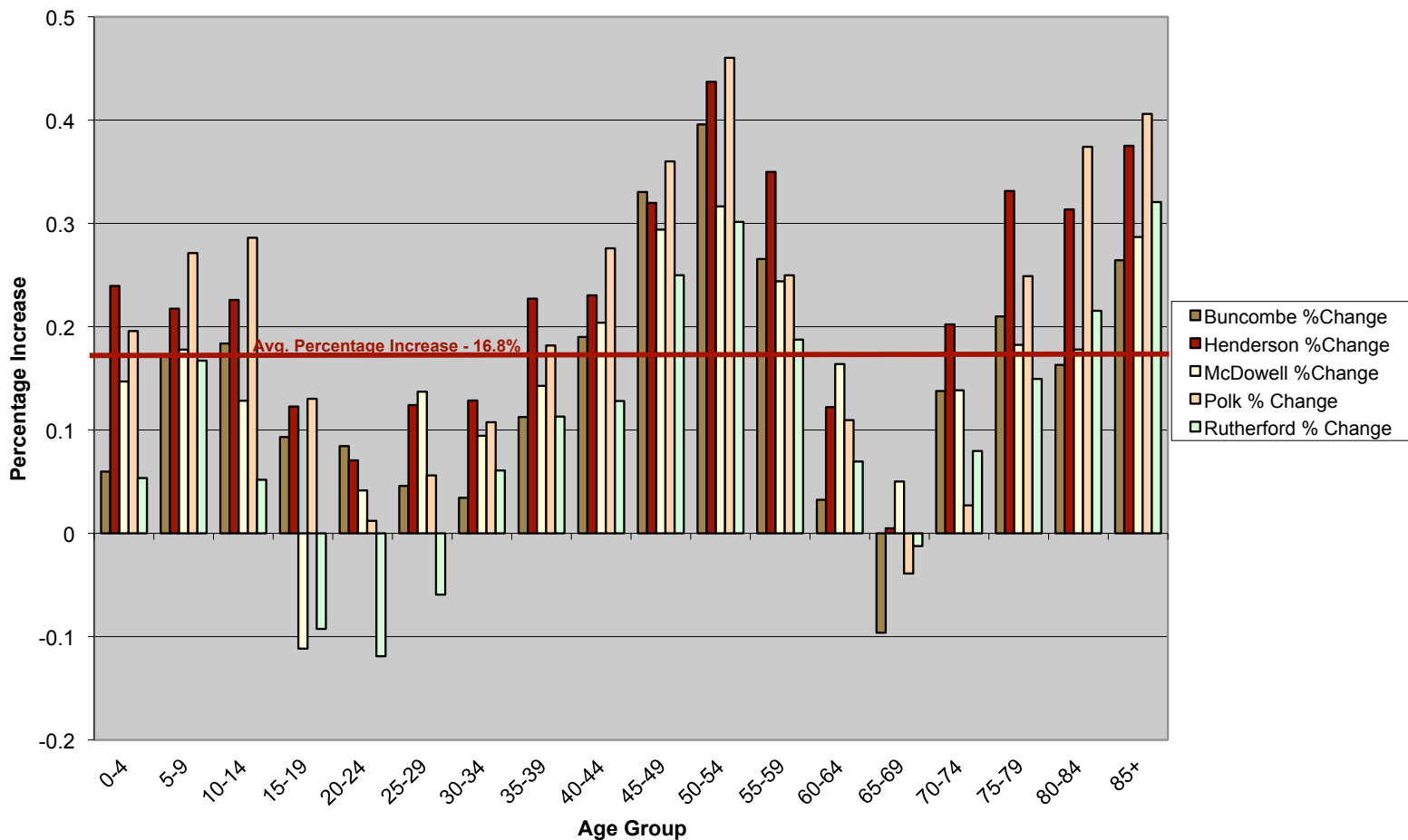
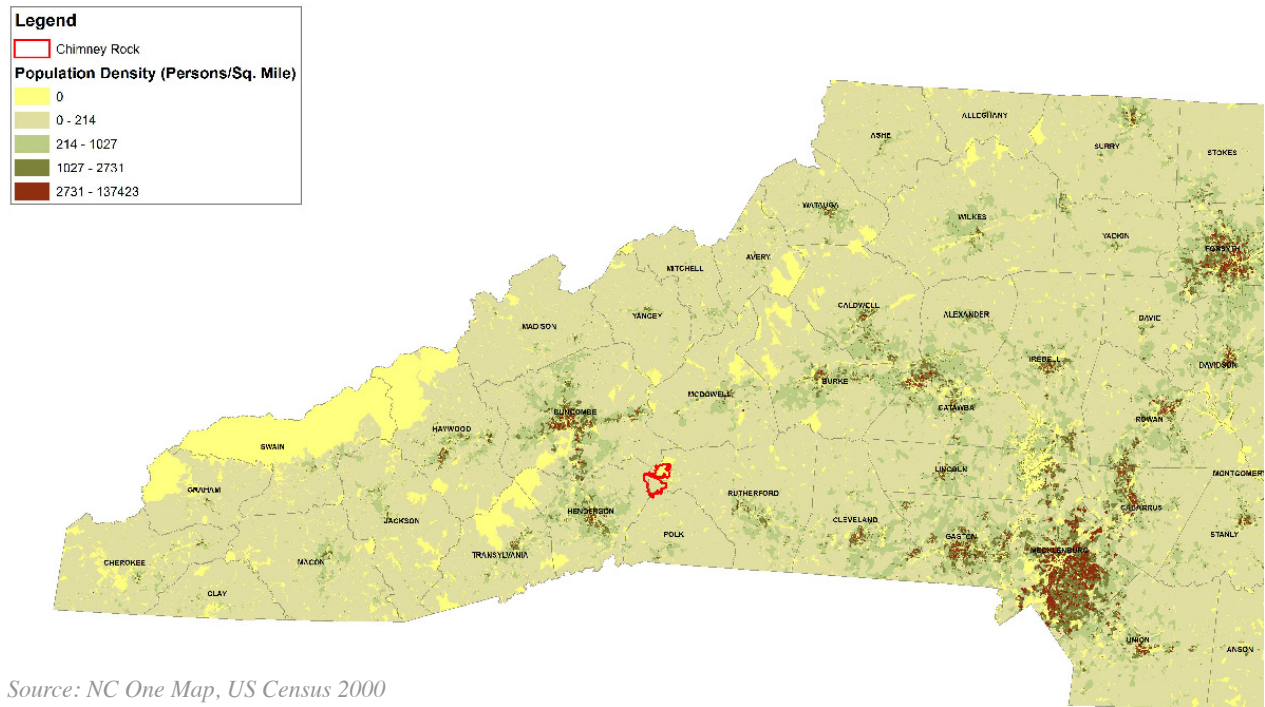
FIGURE 4.13: PERCENTAGE INCREASE BY AGE GROUP (1990 TO 2000) *Western North Carolina*FIGURE 4.14: PERCENTAGE INCREASE BY AGE GROUP (1990 TO 2000) *Chimney Rock Surrounding Counties*



FIGURE 4.15: POPULATION DENSITY 2000 MAP



Source: NC One Map, US Census 2000

IDENTIFYING THE PARK VISITOR

Chimney Rock State Park had 210,720 visitors in 2009 and 214,728 visitors in 2010. Among these visitors, the following park user groups were identified.

WORKING FAMILIES AND YEAR-ROUND RESIDENTS

This group includes families with children, individuals, couples and other household types where the inhabitants generally reside in the community year-round. Most are employed in or around the area.

- Picnicking
- Hiking (moderate, moderate distance, loops)
- Interpretive area(s) with programs
- Horseback riding
- Views, vistas and wildlife
- Fishing, paddling
- Tent site camping





RETIRED YEAR-ROUND RESIDENTS

Retirees include couples, individuals, and other household types where the inhabitants are older than 50 years, not working or working part-time and generally reside in the community year-round. This generally includes “active” retirees in the 50 years old to 75 years old group. In some instances these households may have visiting children, grand children or others who might use recreational facilities. Most have a sustainable source of income from pensions, social security, and savings sources.

- Picnicking
- Hiking (easy, short distance, loops)
- Interpretive area(s) with programs
- Views, vistas and wildlife
- Fishing



TEMPORARY RESIDENTS (RESIDENTIAL VISITORS)

This group includes second and vacation homeowners and those that rent these properties on a seasonal or shorter-term basis. This segment includes a full range of age groups and interests including individuals, families with children, groups of friends and couples.

- Hiking (moderate to difficult, extended mileage, out-and-back)
- Mountain biking
- Rock climbing
- Horseback riding
- Views, vistas and wildlife
- Fishing, paddling
- Backpacking
- Primitive camping



VISITORS (TOURISTS)

The tourist segment includes visitors to the area for short durations ranging from a few hours or less to several days. This group may be just driving through, staying in local hotels, or camping. This segment also includes a full range of age groups and interests including individuals, families with children, groups of friends and couples.

- Hiking (all levels)
- Mountain biking
- Rock climbing
- Horseback Riding
- Views, vista and wildlife
- Fishing and paddling
- Backpacking
- Primitive Camping
- Picnicking
- Interpretive areas with programs

